**Methods:** Vascular Quality Initiative (VQI) data for 465 EVAR and 431 OAAA were linked to cost data at two centers. High-cost cases were defined as those in the upper quartile of cost for each procedure at each center. VQI data elements were then examined for their relative risk of predicting a high-cost outcome. Total cost of hospitalization for AAA repair was the cost measure evaluated. Categoric variables were tested by $\chi^2$ and continuous variables by two-sample *t*-test.

**Results:** The cost of OAAA (mean, $28,183; range, $12,557-$266,615) and EVAR (mean, $32,6546; range, $11,926-$60,894) at center A were compared with OAAA (mean, $27,744; range, $7139-$583,701) and EVAR (mean, $26,634; range, $5372-$302,111) at center B. Factors linked to high cost are reported in the Table.

**Conclusions:** Markers of adverse intraoperative performance and postoperative complications were better predictors of high-cost hospitalizations than preoperative patient characteristics in both OAAA and EVAR patients. Future efforts to optimize costs in all AAA repairs should focus on improving intraoperative performance. This strategy differs from other quality efforts where risk-adjusted models using preoperative patient characteristics were developed to aid patient selection. The total cost of EVAR (and potential applicability of this technology at a given center) is significantly affected by the structure of local stent graft contracting.

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### Policies Designed to Reduce Hospital Readmissions May Result in Increased Limb Loss◇

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**Objectives:** One goal of the Patient Protection and Affordable Care Act is to reduce hospital readmissions, with financial penalties applied for excessive rates of unplanned readmissions ≤30 days among Medicare beneficiaries. Recent data indicate that as many as 24% of Medicare patients require readmission after vascular surgery, although the rate of readmission after limited digital amputations has not been specifically studied. The present study was therefore undertaken to define the rate of unplanned readmission among patients after digital amputations and to identify the factors associated with these readmissions to allow the clinician to implement strategies to reduce readmission rates in the future.

**Methods:** The electronic medical and billing records of all patients undergoing minor amputations, defined as toe or transmetatarsal (TMA) amputations, using Current Procedural Terminology codes from January 2000 through July 2012 were retrospectively reviewed. Data were collected for procedure, hospital-related variables, level of amputation, length of stay, time to readmission, level of reamputation, and patient demographics, including hypertension, diabetes, hyperlipidemia, smoking history, and history of myocardial infarction, congestive heart failure, peripheral arterial disease, chronic obstructive pulmonary disease, , and cerebrovascular accident.

**Results:** Minor amputations were performed in 775 patients (62.2% male), including toe amputations in 564 (72.8%), TMAs in 151 (19.5%), and 60 (7.8%) undergoing Lisfranc or Chopart amputations. Readmission occurred in 105 patients (13.6%), including 29 (3.7%) ≤30 days, 29 (3.7%) from 30 to 60 days, and 47 (6.0%) at >60 days after the index amputation. Multivariable analysis revealed that elective admission ($P < .001$), peripheral arterial disease ($P < .001$), history of myocardial infarction ($P = .0040$), and chronic renal insufficiency ($P = .017$) were associated with readmission. The reasons for readmission were infection (47.3%), ischemia (29.8%), nonhealing wound (20.2%), and indeterminate (2.7%). Reamputation occurred in 99 (94.3%) of the readmitted patients, including limb amputation in 64 patients (65%), comprising below the knee in 58, through the knee in 2, and above the knee in 4.

**Conclusions:** Readmission after minor amputation was associated with limb amputation in most cases. Although efforts to reduce unplanned hospital readmissions are laudable, payors must understand that pressure to reduce readmission rates in the patient population with extensive comorbidity may induce practitioners to undertake amputation at a higher level initially to minimize the risk of readmission for reamputation and associated financial penalties and thus deprive the patient the chance for limb salvage.

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### Cost Drivers of Superficial Femoral Artery Stenting and Impact on Outcomes†

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**Objectives:** Patients considered for endovascular treatment of superficial femoral artery (SFA) disease present with a wide array of lesion complexity and treatment options. This study examined the cost drivers of SFA stent treatment and their effect on outcome.

**Methods:** We retrospectively collected clinical and financial data of patients undergoing SFA stenting to evaluate the relationship between direct procedural cost and 1-year patency. Adjuncts to SFA stenting were defined as stent grafts, atherectomy, re-entry, and embolic protection devices.

**Results:** We studied 95 patients (62% male) who underwent SFA stenting from January 2010 to February 2012. Patients were a mean age of 71 years, 41% were diabetic, 46% had critical limb ischemia (CLI), and 24% had a TransAtlantic Inter-Society Consensus (TASC) C or D lesion. Primary patency at 1 year was better in patients with claudication than with CLI (91% vs 74%, $P = .06$). Although the rate of adjunct use was similar in patients with claudication and CLI (12%), more adjuncts were used in patients with TASC C and D lesions (22% C and D, 8% A and B; $P = .09$). Mean direct costs for SFA stenting without adjunct use was $2838 (95% confidence interval, $2,586-$3,089), whereas adjunct use increased mean costs to $7318 (95% confidence interval, $4,817-$9,820; $P < .01$). Multivariate regression showed that TASC C and D classification and adjunct use were associated with the highest tertile of costs ($P < .05$. There was no association between cost and primary patency (Fig).

**Conclusions:** Adjunct devices are often necessary to achieve technical success for treatment of TASC C and D SFA lesions. Their use is associated with increased cost, yet has a minimal effect on midterm patency.

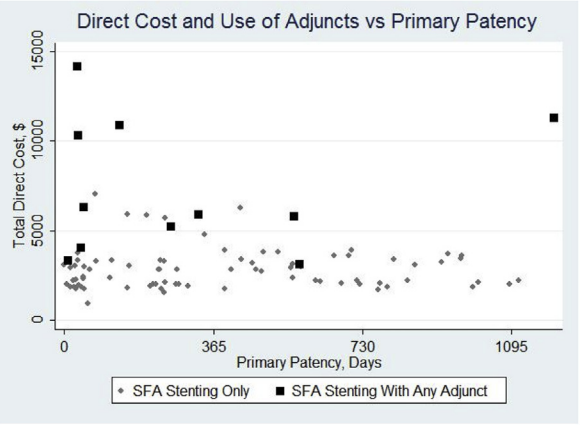


**Fig.** Direct cost and use of adjuncts vs primary patency. *SFA*, Superficial femoral artery.

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### Clinical Feasibility and Financial Impact of Same-Day Discharge in Patients Undergoing Endovascular Aortic Repair (EVAR) for Elective Infra-abdominal Aortic Aneurysm (AAA)◇

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